

REPLACEMENT SHEET

Title: GUTTER FILLERS AND PACKS WITH ENHANCED FLUID FLOW

Applicant: Pourdeyhimi et al.

Serial No.: 10/669,541

Atty Docket: 297/185/2

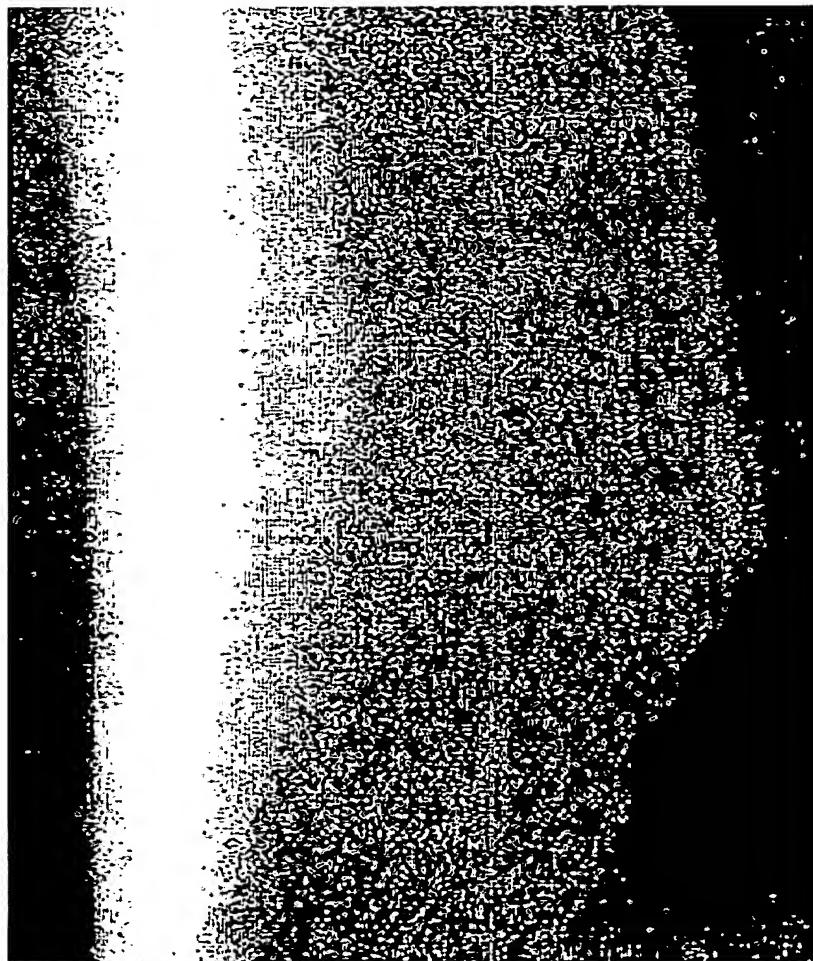


FIG. 1A

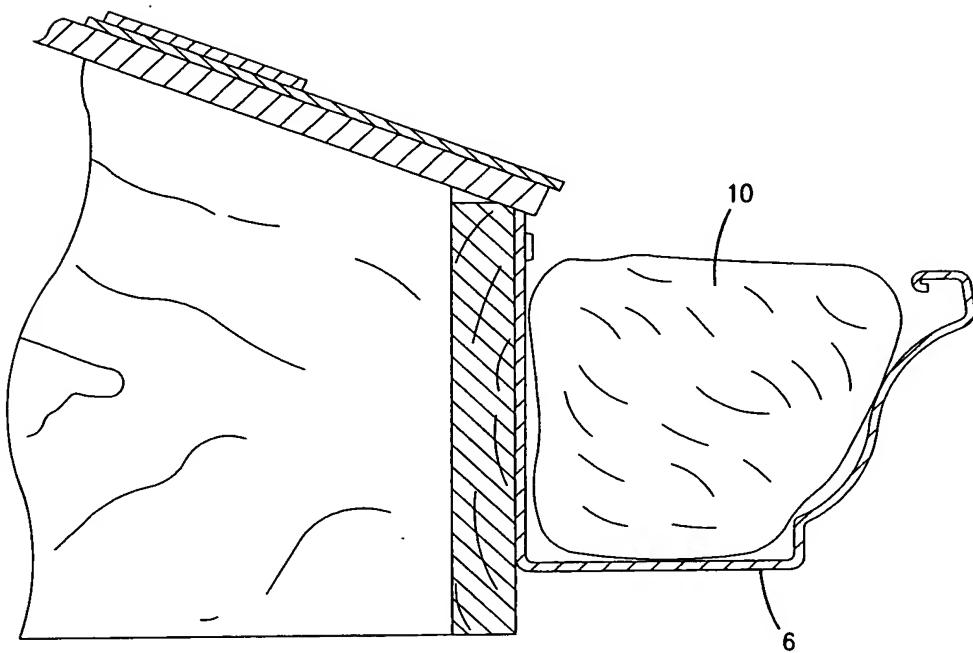
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**FIG. 1B**

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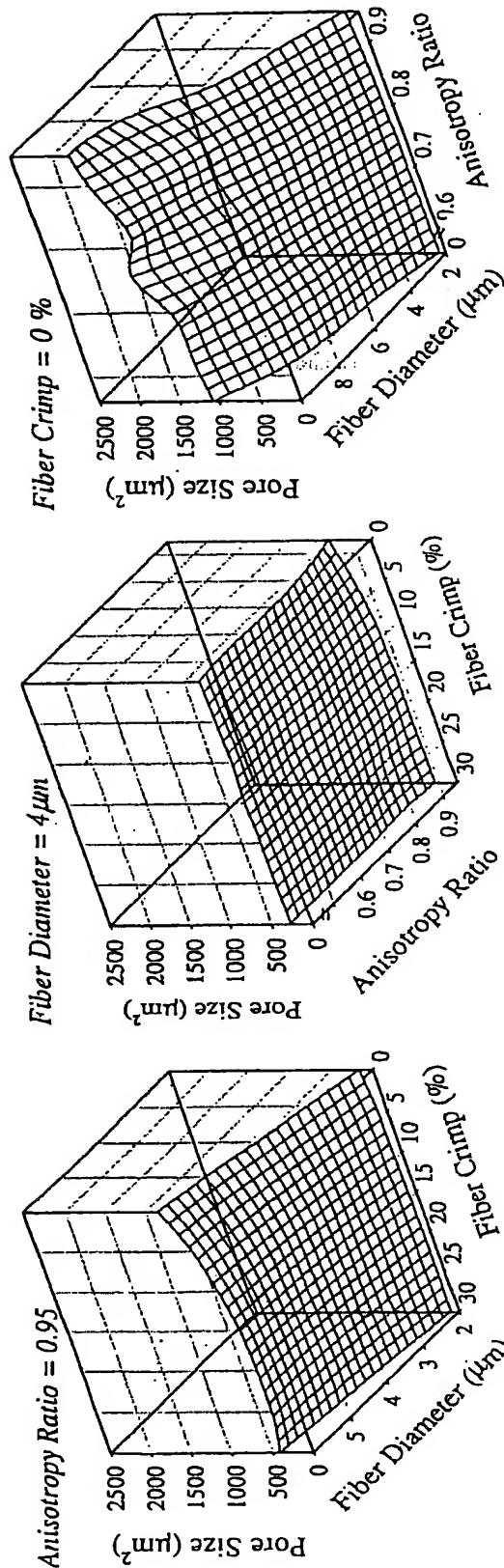


FIG. 2A  
FIG. 2B  
FIG. 2C

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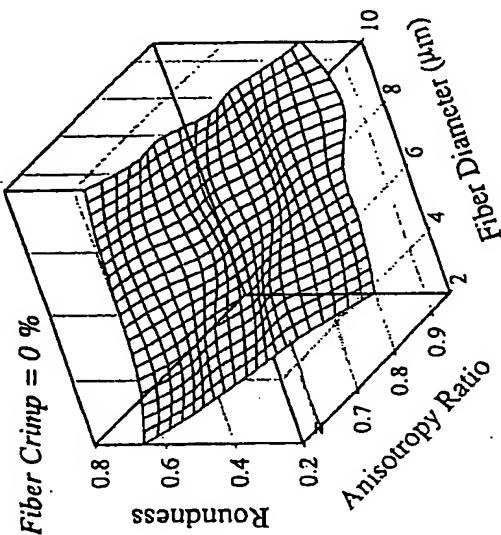


FIG. 3C

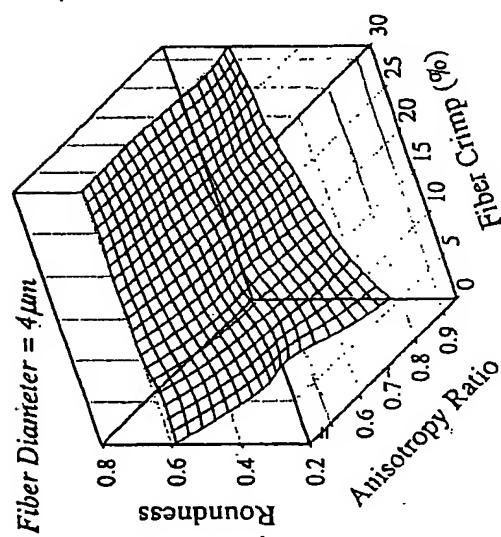


FIG. 3B

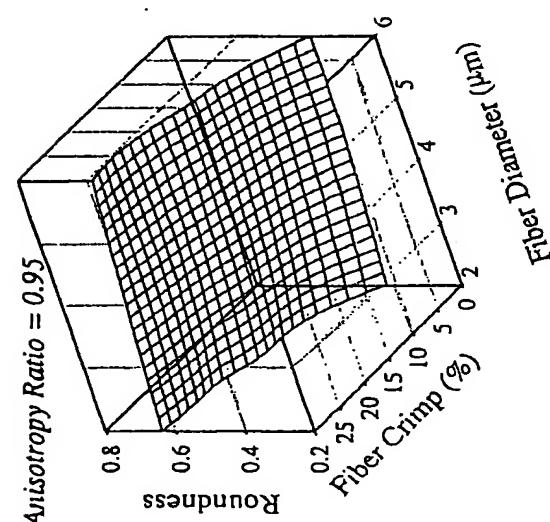


FIG. 3A

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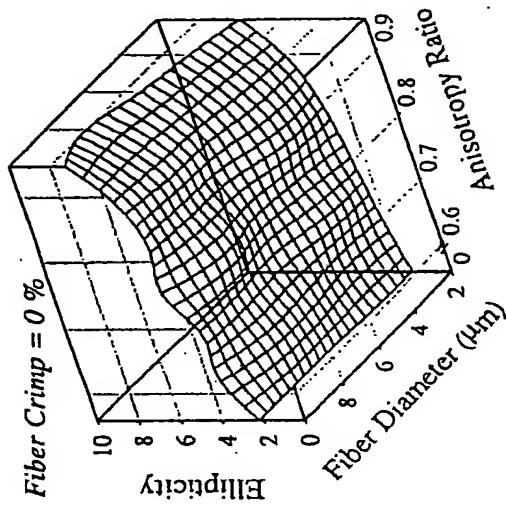


FIG. 4C

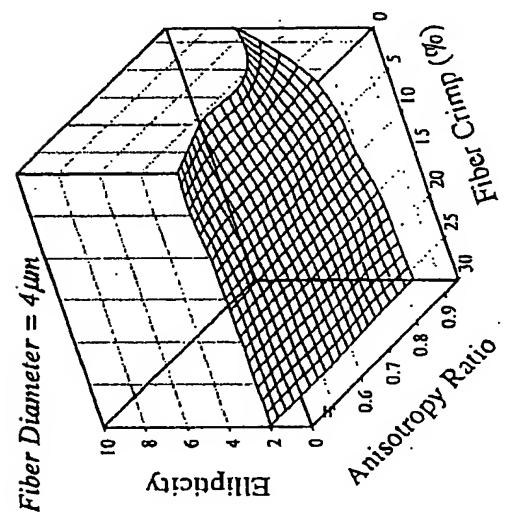


FIG. 4B

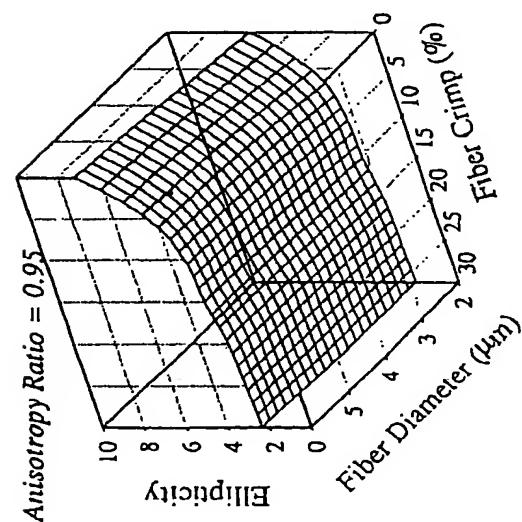


FIG. 4A

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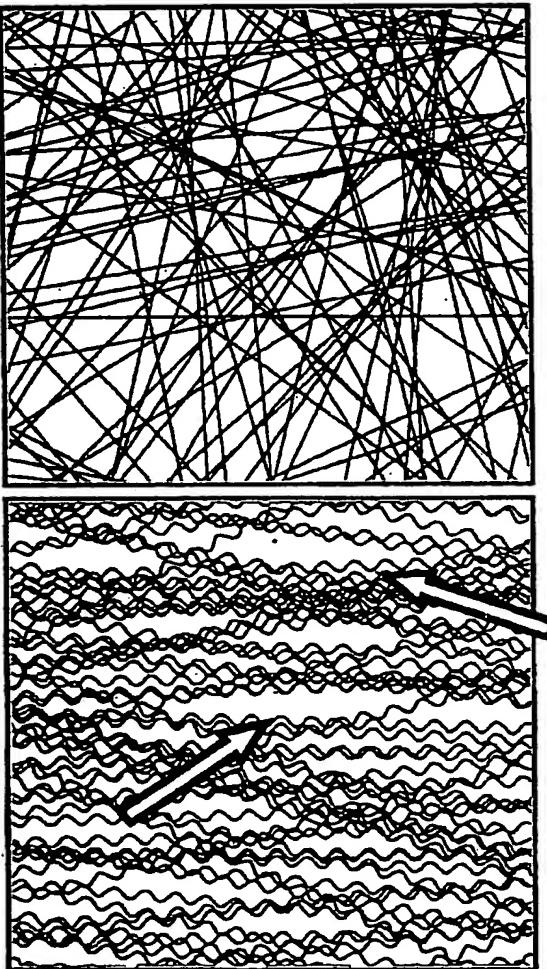
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FIG. 5A  
FIG. 5B



Normal ODF

Mean = 90

std dev = 10

Anisotropy Ratio = 0.95

Fiber Diameter = 6  $\mu\text{m}$

Crimp = 30 %

Random ODF

Min = 0

Max = 179

Anisotropy Ratio = 0.00

Fiber Diameter = 6  $\mu\text{m}$

Crimp = 0 %

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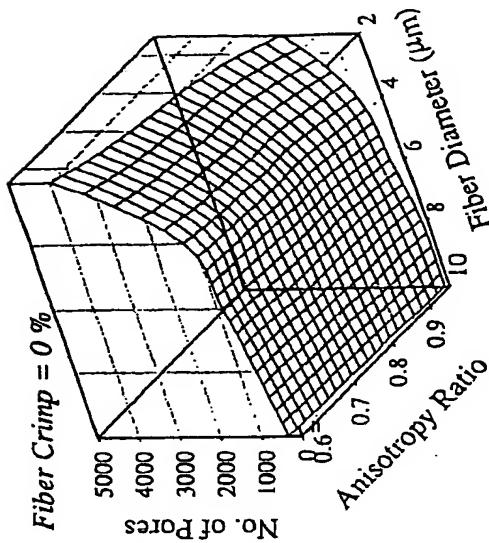


FIG. 6C

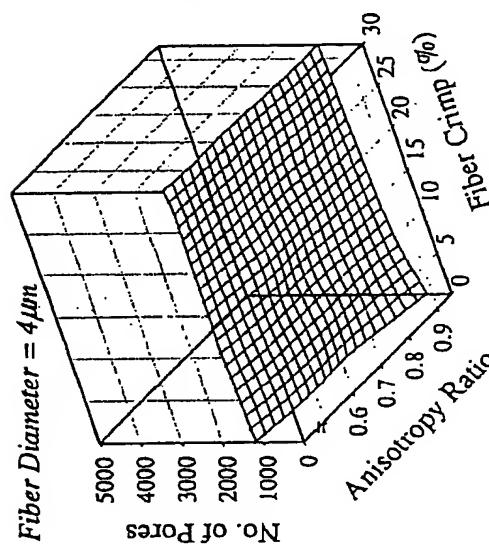


FIG. 6B

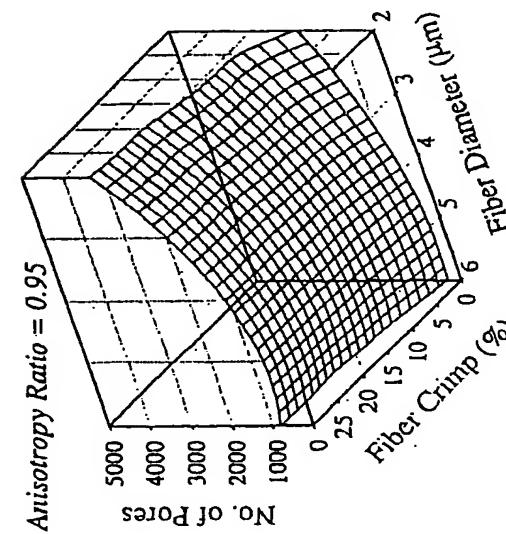
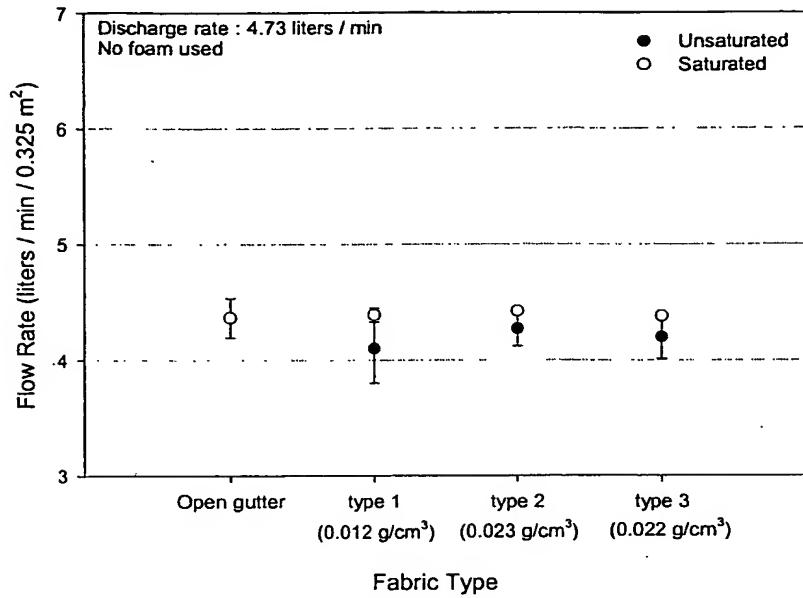


FIG. 6A

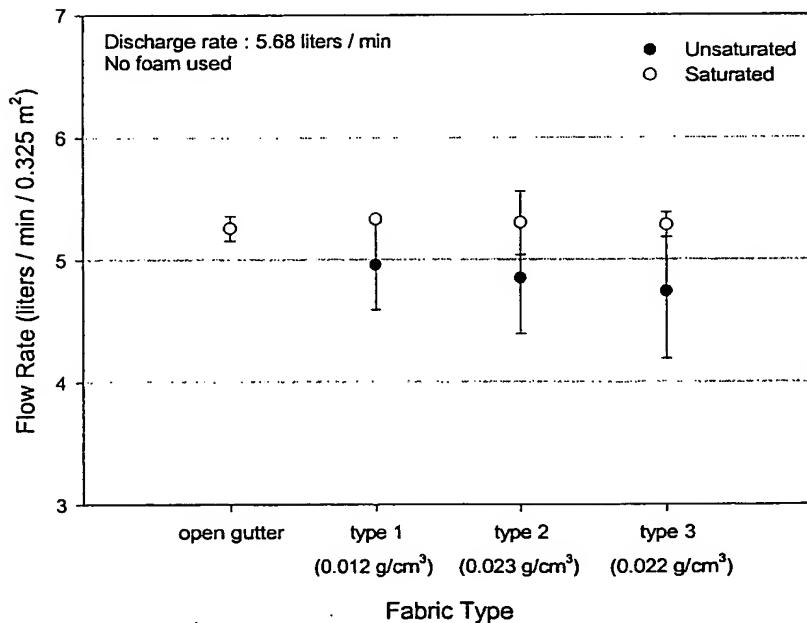
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**FIG. 7**



**Fabric Type vs. Flow Rate at 4.73 liters/min discharge**

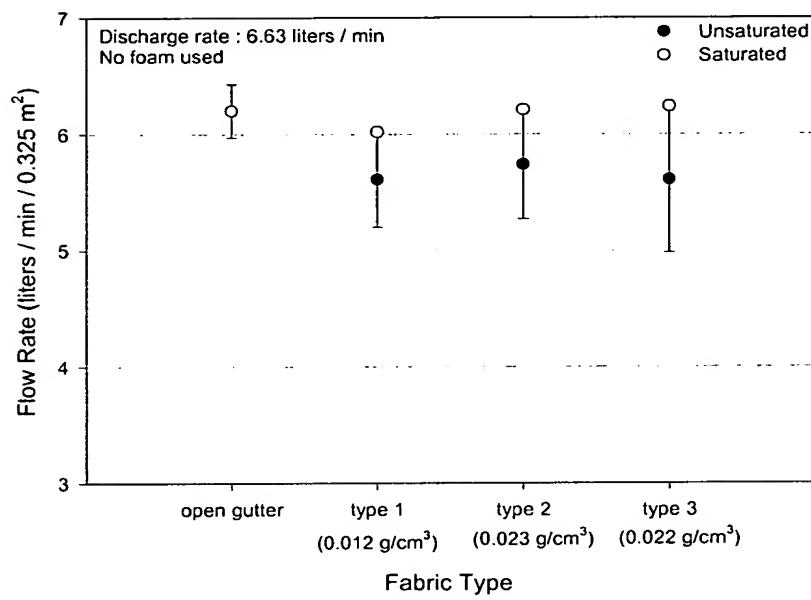
**FIG. 8**



**Fabric Type vs. Flow Rate at 5.68 liters/min discharge**

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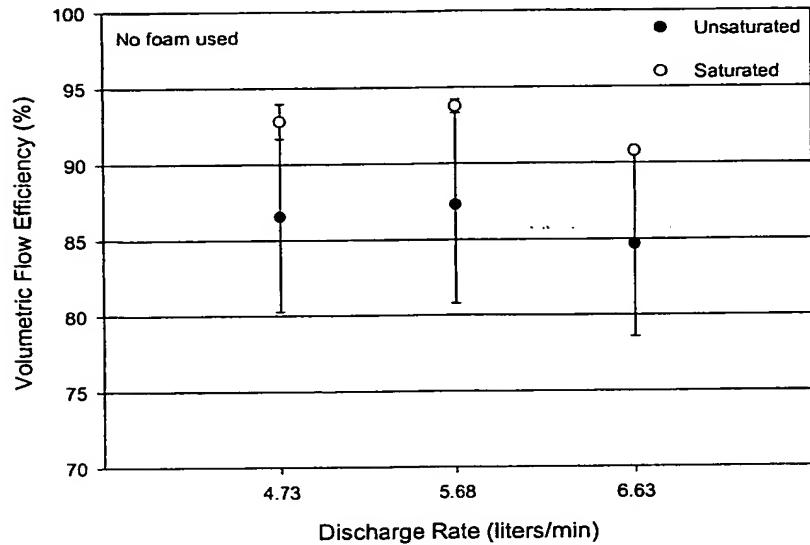
**FIG. 9**



**Fabric Type vs. Flow Rate at 6.63 liters/min discharge**

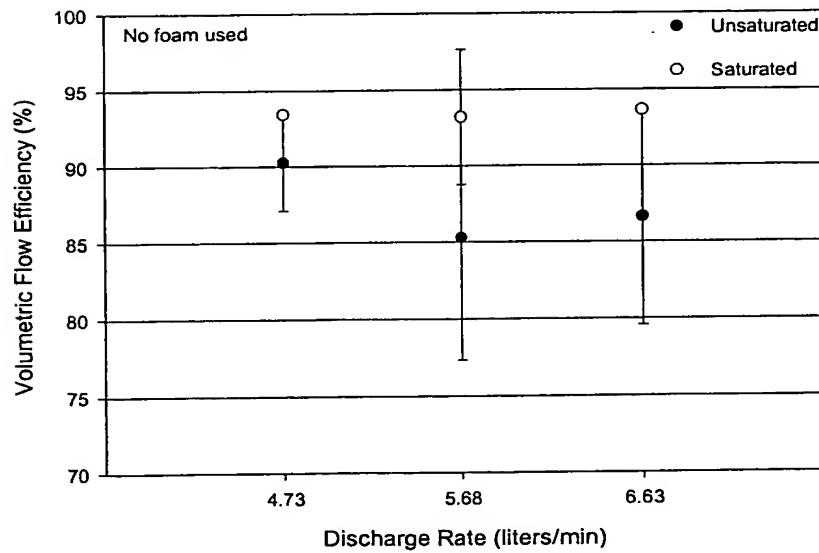
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**FIG. 10**



**Vol. Flow Efficiency of Type 1 sample at different discharge rates**

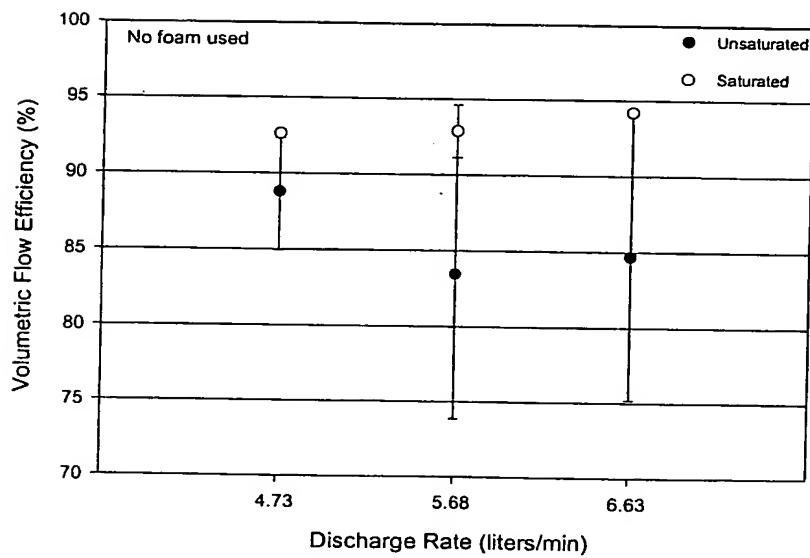
**FIG. 11**



**Vol. Flow Efficiency of Type 2 sample at different discharge rates**

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**FIG. 12**



Vol. Flow Efficiency of Type 3 sample at different discharge rates

**REPLACEMENT SHEET**

**Title: GUTTER FILLERS AND PACKS WITH ENHANCED FLUID FLOW**

**Applicant: Pourdeyhimi et al.**

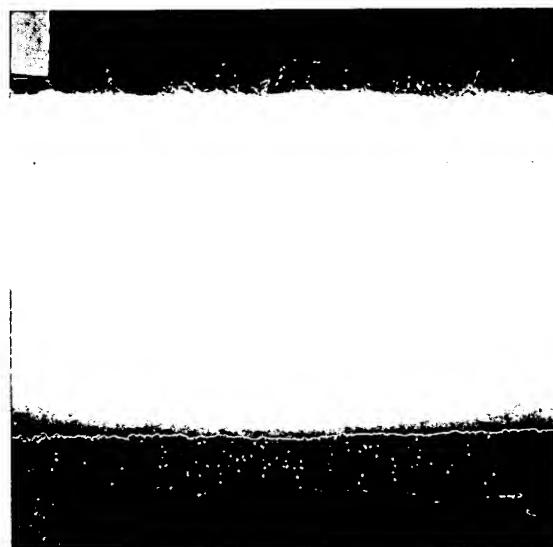
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**Yellow foam material (left) under a highloft**

**FIG. 13A**

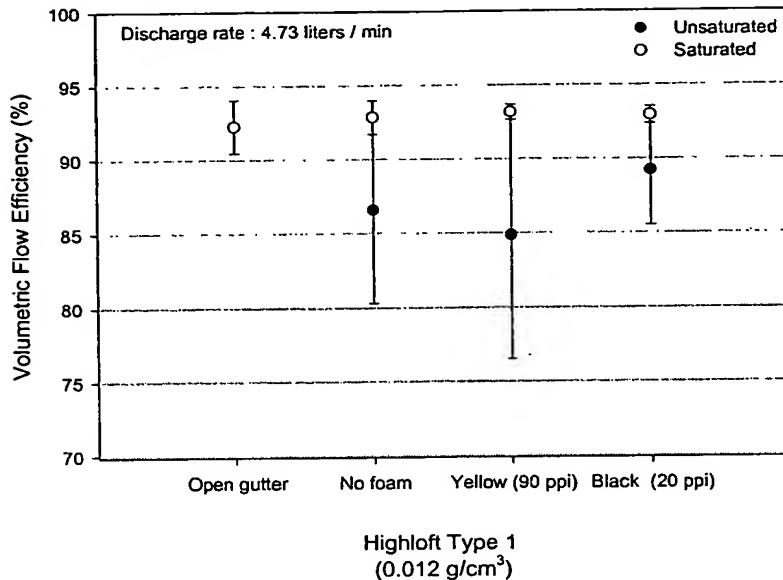


**Black foam material (right) under a highloft**

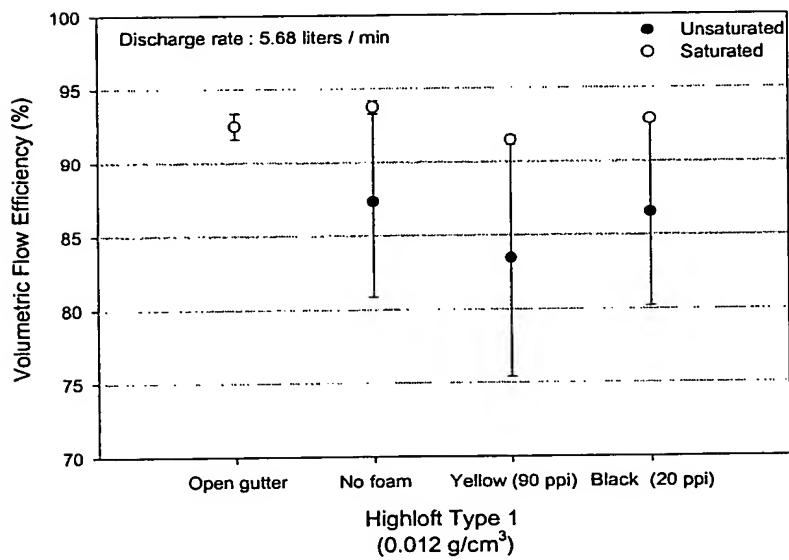
**FIG. 13B**

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**FIG. 14**



**Type 1 (under the presence of different foams) VS.  
Vol. Flow Efficiency at 4.73 liters/min**

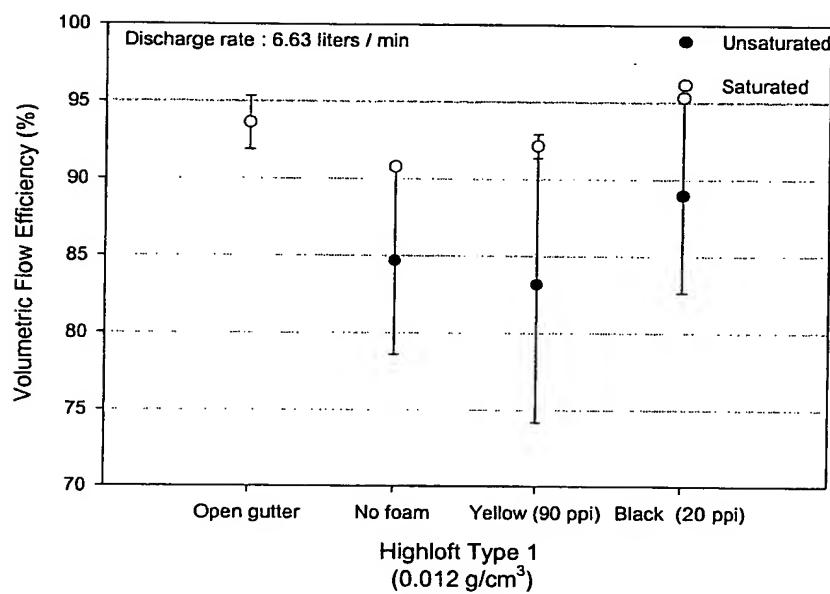


**Highloft Type 1 (under the presence of different foams) vs. Vol. Flow Efficiency at 5.68 liters/min**

**FIG. 15**

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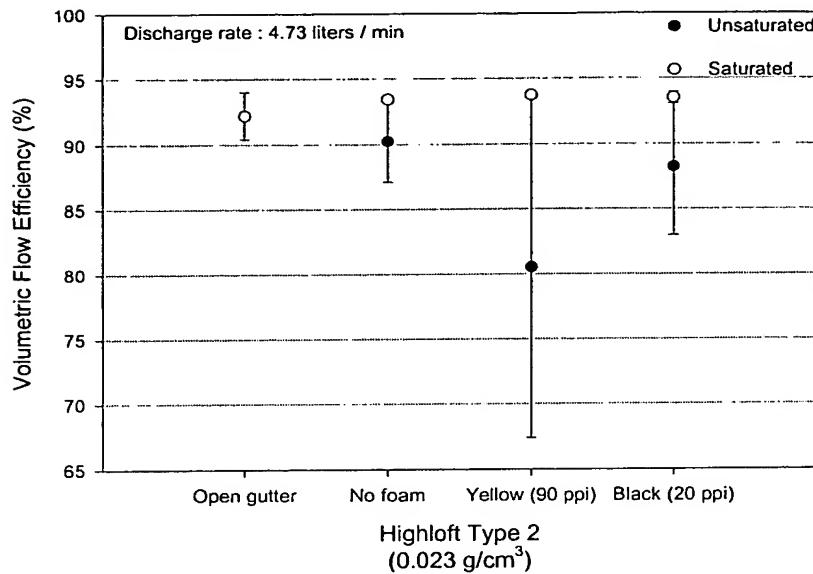
**FIG. 16**



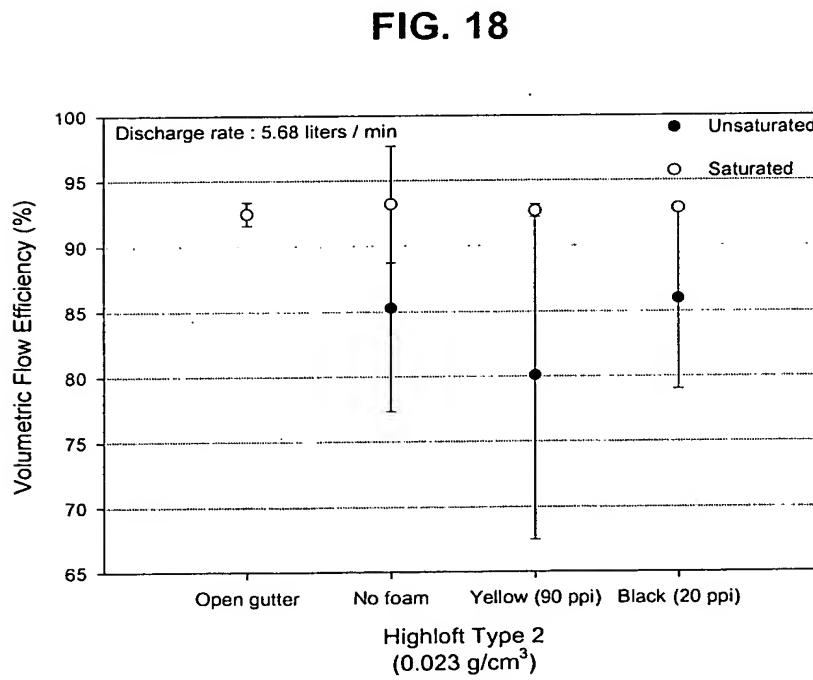
**Highloft Type 1 (under the presence of different foams) vs. Vol. Flow Efficiency at 6.63 liters/min**

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**FIG. 17**



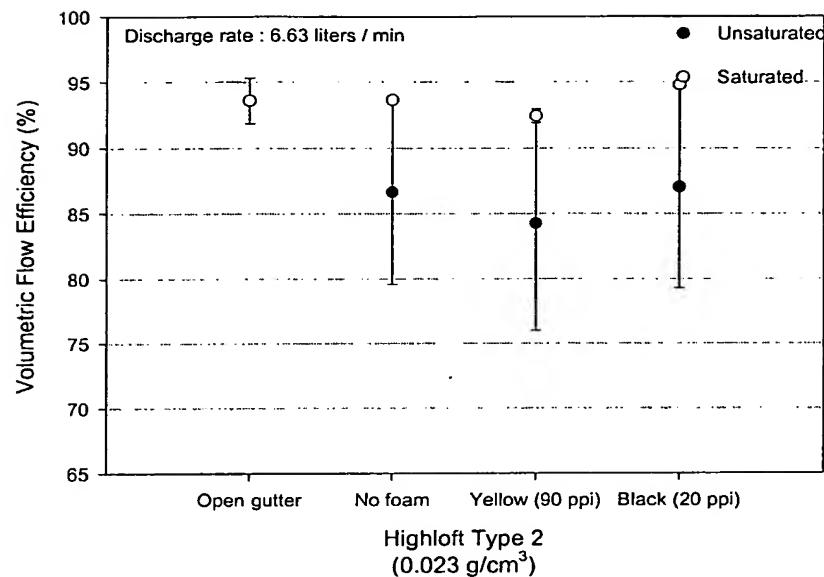
**Highloft Type 2 (under the presence of different foams) vs.  
Vol. Flow Efficiency at 4.73 liters/min**



**Highloft Type 2 (under the presence of different foams) vs.  
Vol. Flow Efficiency at 5.68 liters/min**

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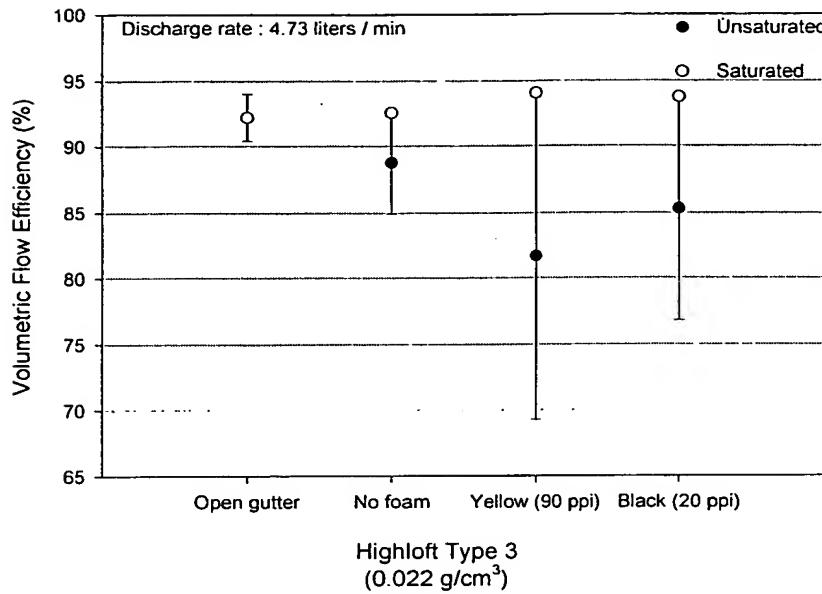
**FIG. 19**



**Highloft Type 2 (under the presence of different foams) vs.  
Vol. Flow Efficiency at 6.63 liters/min**

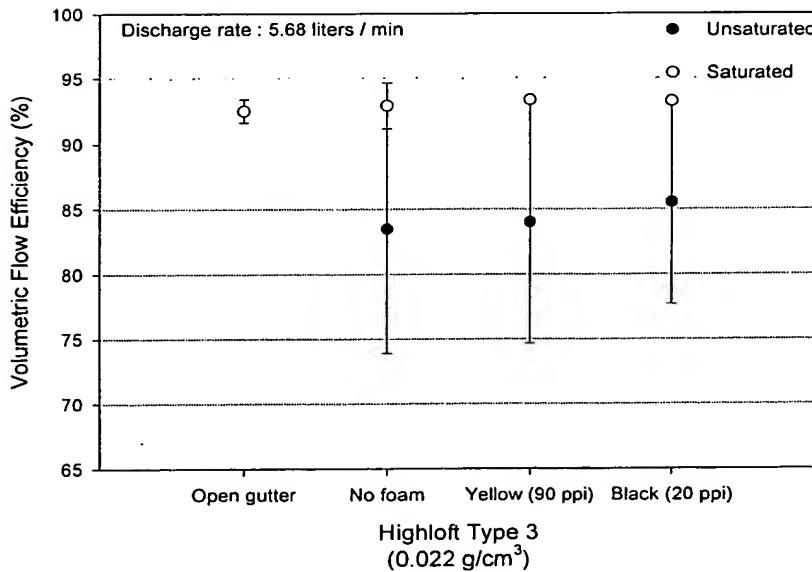
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**FIG. 20**



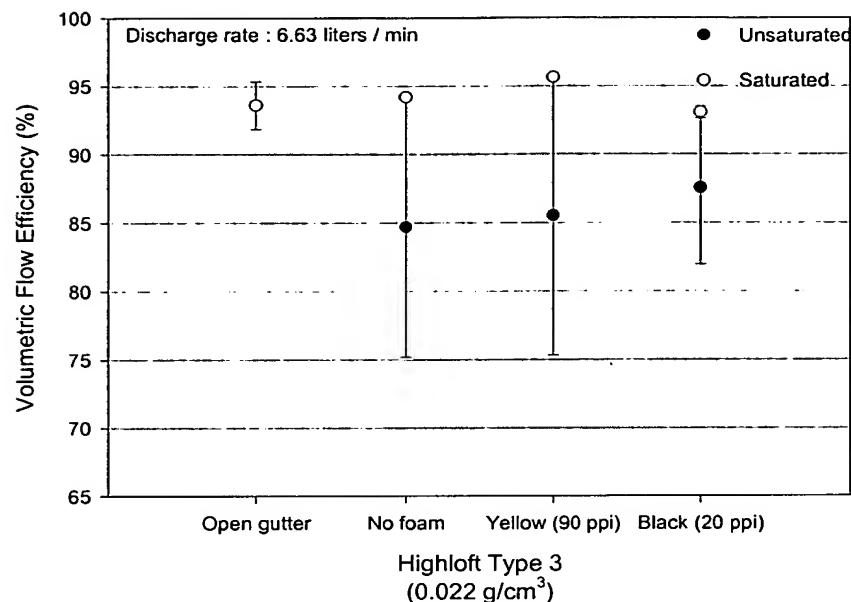
Highloft Type 3 (under the presence of different foams)  
vs. Vol. Flow Efficiency at 4.73 liters/min

**FIG. 21**



Highloft Type 3 (under the presence of different foams) vs.  
Vol. Flow Efficiency at 5.68 liters/min

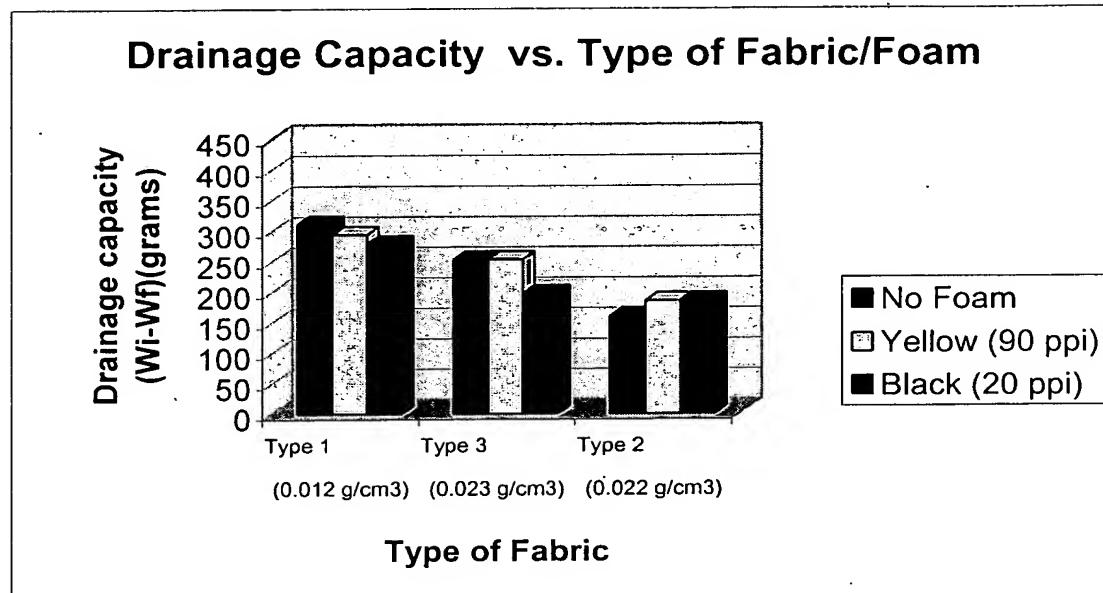
**FIG. 22**



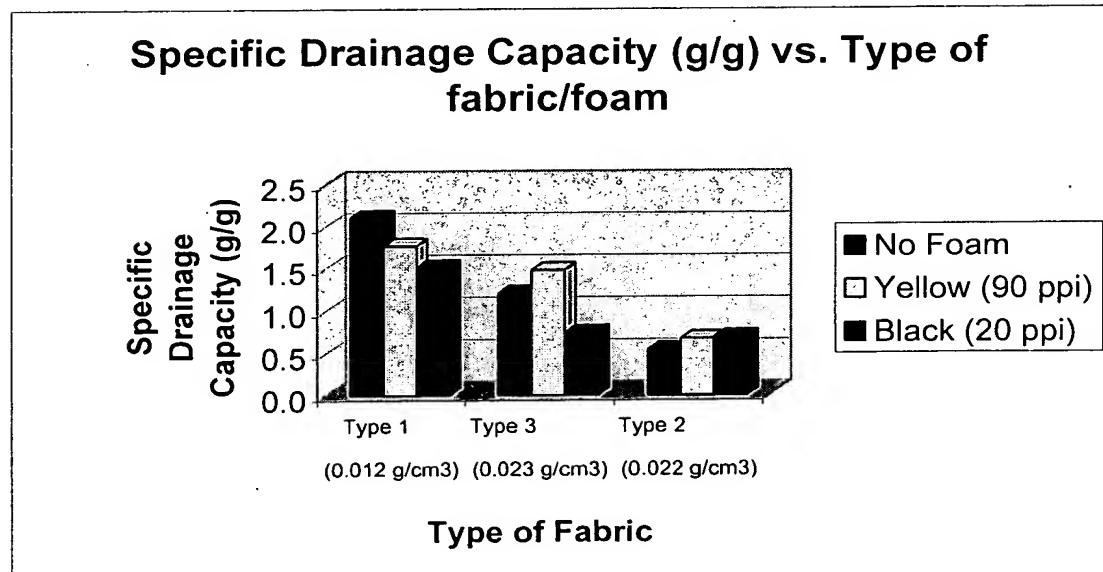
**Highloft Type 3 (under the presence of different foams) vs.  
Vol. Flow Efficiency at 6.63 liters/min**

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**FIG. 23A**



**FIG. 23B**



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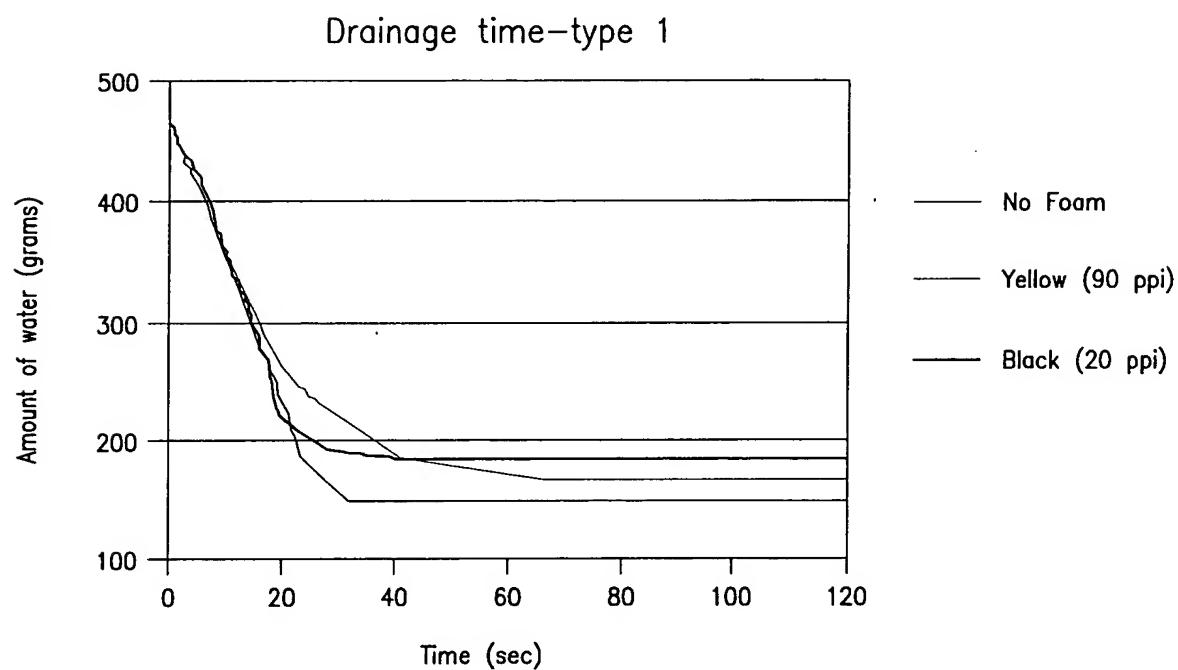
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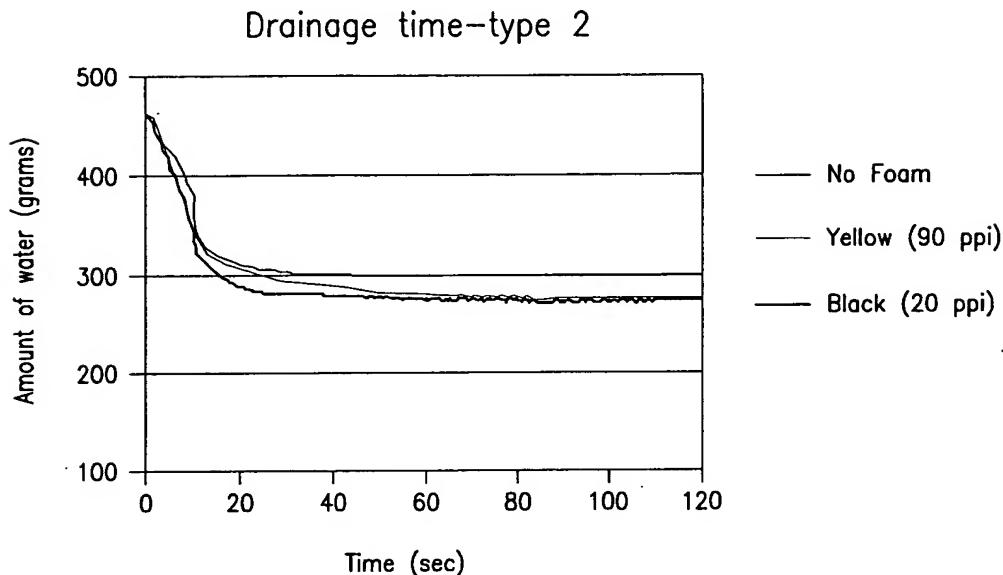
Drainage time for type 1 sample with/without foam materials



**FIG. 24**

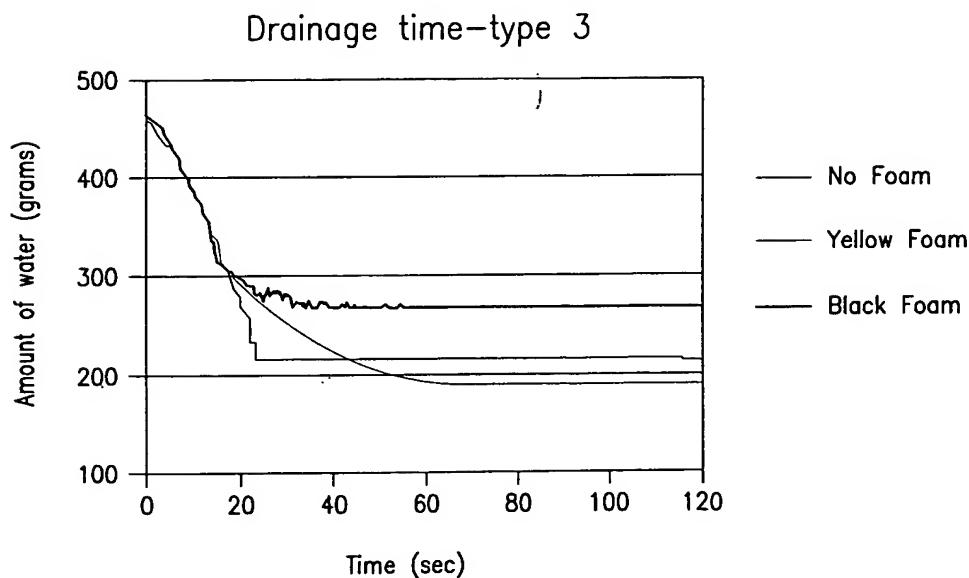
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Drainage time for type 2 sample with/without foam materials



**FIG. 25**

Drainage time for type 3 sample with/without foam materials



**FIG. 26**